Mutation Research, 235 (1990) 227–228
DNA Repair Reports
Elsevier

Contents

Volume 235 (1990)

Research Papers

Photobiological effects in *Saccharomyces cerevisiae* induced by the monofunctional furocoumarin 4,4′,6-trimethylangelicin (TMA) and the bifunctional furocoumarin 8-methoxypsoralen (8-MOP)
L. Bianchi, A. Bianchi, F. Dall'Acqua and L. Santamaria (Italy) 1

Sensitivity to ether anesthesia and to γ-rays in mutagen-sensitive strains of *Drosophila melanogaster*
S. Gamo, T. Megumi and E. Nakashima-Tanaka (Japan) 9

Isolation of a *Bacillus subtilis* mutant defective in constitutive O^6-alkylguanine-DNA alkyltransferase
F. Morohoshi and N. Munakata (Japan) 15

X-Ray sensitivity and single-strand DNA break repair in mutagen-sensitive mutants of *Drosophila melanogaster*
D.R. Oliveri, P.V. Harris and J.B. Boyd (U.S.A.) 25

Relationship between pyrimidine dimers, 6–4 photoproducts, repair synthesis and cell survival: Studies using cells from patients with trichothiodystrophy
B.C. Broughton, A.R. Lehmann, S.A. Harcourt, C.F. Arlett, A. Sarasin, W.J. Kleijer, F.A. Beemer, R. Nairn and D.L. Mitchell (Great Britain, France, The Netherlands, U.S.A.) 33

Evidence to support the existence of efficient DNA double-strand break rejoining in a radiosensitive mutant of V79-4 following irradiation with 250 kVp X-rays or neutrons
J.C. Fox (Great Britain) 41

DNA-break repair, radioresistance of DNA synthesis, and camptothecin sensitivity in the radiation-sensitive *irs* mutants: Comparisons to ataxia-telangiectasia cells
J. Thacker and A.N. Ganesh (Great Britain) 49

Restoration of radiation resistance in ataxia telangiectasia cells by the introduction of normal human chromosome 11
K. Komatsu, S. Kodama, Y. Okumura, M. Koi and M. Oshimura (Japan) 59

Chromatin-associated DNA endonucleases from xeroderma pigmentosum cells are defective in interaction with damaged nucleosomal DNA
D.D. Parrish and M.W. Lambert (U.S.A.) 65

Unscheduled DNA synthesis after treatment with 20-methylcholanthrene and *N*-nitrosodimethylamine in primary culture of human gallbladder epithelial cells
K. Miyazaki, M.D. Lü and F. Nakayama (Japan) 81

The *sir* locus of *Escherichia coli*: a gene involved in SOS-independent repair of mitomycin C-induced DNA damage
K.R. Kumaresan and R. Jayaraman (India) 85

Differential poly(ADP-ribose) metabolism in repair-proficient and repair-deficient murine lymphoma cells
H.E. Kleczkowska, I. Szumiel and F.R. Althaus (Poland, Switzerland) 93

Thiol and hydrogen peroxide modification of *recA* induction in UV-irradiated wild-type and catalase-deficient *Escherichia coli* K12
H.G. Claycamp, K.-K. Ho and C. DeRose (U.S.A.) 101

Isolation and partial characterisation of a mammalian cell mutant hypersensitive to topoisomerase II inhibitors and X-rays
S.M. Davies, S.L. Davies, A.G. Hall and I.D. Hickson (Great Britain) 111

Biochemical and cytogenetical characterization of Chinese hamster ovary X-ray-sensitive mutant cells xrs 5 and xrs 6
V. The correlation of DNA strand breaks and base damage to chromosomal aberrations and sister-chromatid exchanges induced by X-irradiation
F. Darroudi, A.T. Natarajan, G.P. Van der Schans and A.A.W.M. Van Loon (The Netherlands) 119

Biochemical and cytogenetical characterization of Chinese hamster ovary X-ray-sensitive mutant cells xrs 5 and xrs 6
VI. The correlation between UV-induced DNA lesions and chromosomal aberrations, and their modulations with inhibitors of DNA repair synthesis
F. Darroudi, A.T. Natarajan and G.P. Van der Schans (The Netherlands) 129

Differential cell cycle modulation of human DNA glycosylases against oxidized pyrimidines
T. Ganguly and N.J. Duker (U.S.A.) 137

UvrABC nuclease complex repairs thymine glycol, an oxidative DNA base damage
Y.W. Kow, S.S. Wallace and B. Van Houten (U.S.A.) 147

0921-8777/90/$03.50 © 1990 Elsevier Science Publishers B.V. (Biomedical Division)

Cyclobutane–pyrimidine dimer excision in UV-sensitive CHO mutants and the effect of the human *ERCC2* repair gene
J.D. Regan, L.H. Thompson, W.L. Carrier, C.A. Weber, A.A. Francis and M.Z. Zdzienicka (U.S.A., The Netherlands) 157

A constitutive O^6-methylguanine–DNA methyltransferase of *Rhizobium meliloti*
A. Kaufman and G.C. Walker (U.S.A.) 165

Selective repair of specific chromatin domains in UV-irradiated cells from xeroderma pigmentosum complementation group C
G.J. Kantor, L.S. Barsalou and P.C. Hanawalt (U.S.A.) 171

Wavelength dependence for UV-induced pyrimidine dimer formation in DNA of human peripheral blood lymphocytes
S.E. Freeman and S.L. Ryan (U.S.A.) 181

Base sequence specificity of a monoclonal antibody binding to (6-4)photoproducts
T. Matsunaga, T. Mori and O. Nikaido (Japan) 187

Excision-repair capacity in *Streptococcus pneumoniae*: cloning and expression of a uvr-like gene
N. Sicard and A.M. Estevenon (France) 195

Is the induction of pyrimidine cyclobutane dimers relevant for the high cytotoxic effect of 7-methylpyrido[3,4-*c*]psoralen plus UV-A?
S. Nocentini (France) 203

Human chromosome 9 can complement UV sensitivity of xeroderma pigmentosum group A cells
K. Ishizaki, M. Oshimura, M.S. Sasaki, Y. Nakamura and M. Ikenaga (Japan) 209

Neutral filter elution detects only limited inhibition of double-strand break repair by 9-β-D-arabinofuranosyladenine
N.D. Costa and P.E. Bryant (Great Britain) 217

Announcement 225

Contents, Vol. 235 (1990) 227